

In the Claims:

1. (PREVIOUSLY PRESENTED) A system for multiple access comprising:
 - an access device comprising an antenna and a wireline communication port;
 - a wireline switch configured to communicate with the access device using a first wireline communication and a second wireline communication; and
 - a wireless switch configured to communicate with the access device using a first wireless communication and a second wireless communication;wherein the access device is configured to receive data in a premises communication from a premises equipment and process a first portion of the data for transmission in the second wireless communication and process a second portion of the data for transmission in the second wireline communication; and
 - wherein the access device further configured to receive the first wireline communication via the wireline communication port, to transmit the second wireline communication via the wireline communication port, to receive the first wireless communication via the antenna, and to transmit the second wireless communication via the antenna.
- 2, 3. (PREVIOUSLY CANCELED)
4. (PREVIOUSLY PRESENTED) The system of claim 1 wherein at least one of the first and second wireless communications comprises at least one member of a group consisting of a multipoint multichannel distribution service spectrum communication, a code division multiplex access communication, a personal communication service communication, an unlicensed personal communications service spectrum communication, an industrial scientific medical spectrum communication, an unlicensed national information infrastructure spectrum communication, and a satellite service communication.

5. (PREVIOUSLY PRESENTED) The system of claim 1 wherein at least one of the first and second wireline communications comprises at least one member of a group consisting of a digital subscriber line based communication and a hybrid fiber coaxial based communication.
6. (ORIGINAL) The system of claim 1 wherein the access device and the wireless switch are not within line of sight.
7. (PREVIOUSLY PRESENTED) The system of claim 1 wherein the access device is configured to process at least one member of a group consisting of the first and second wireless communications and the first and second wireline communications using an inverse multiplex asynchronous transfer mode protocol.
8. (PREVIOUSLY PRESENTED) The system of claim 7 wherein the processing using inverse multiplex asynchronous transfer mode protocol comprises at least one member of a group consisting of multiplexing and de-multiplexing.
9. (CURRENTLY AMENDED) The system of claim 1 wherein the access device is further ~~[[is]]~~ configured to use an inverse ~~multiplex~~ multiplex asynchronous transfer mode protocol to combine data from the first wireless communication and other data from the first wireline communication to form ~~[[a]]~~ another premises communication.
10. (CURRENTLY AMENDED) The system of claim 9 further comprising ~~[[a]]~~ the premises equipment configured to receive the other premises communication from the access device.
11. (PREVIOUSLY PRESENTED) The system of claim 1 wherein the access device is configured to use an inverse multiplex asynchronous transfer mode protocol to process the first and second portions of the data.
12. (PREVIOUSLY CANCELED)

13. (ORIGINAL) The system of claim 1 wherein the access device comprises a digital subscriber line modem.

14. (ORIGINAL) The system of claim 1 wherein the wireline switch comprises a digital subscriber line access multiplexer.

15. (PREVIOUSLY PRESENTED) The system of claim 1 wherein the wireline switch comprises at least one member of a group consisting of a local exchange carrier switch and an interexchange carrier switch.

16. (PREVIOUSLY PRESENTED) The system of claim 1 wherein the access device is configured to process at least one of the first and second wireless communications with at least one member of a group consisting of encryption, de-encryption, encoding, decoding, multiplexing, de-multiplexing, modulation, and demodulation.

17. (PREVIOUSLY PRESENTED) The system of claim 1 wherein the access device is configured to process at least one of the first and second wireline communications with at least one member of a group consisting of encryption, de-encryption, encoding, decoding, multiplexing, de-multiplexing, modulation, and demodulation.

18. (PREVIOUSLY PRESENTED) The system of claim 1 wherein the wireless switch is configured to process at least one of the first and second wireless communications with at least one member of a group consisting of encryption, de-encryption, encoding, decoding, multiplexing, de-multiplexing, modulation, and demodulation.

19. (PREVIOUSLY PRESENTED) The system of claim 1 wherein the wireline switch is configured to process at least one of the first and second wireline communications with at least one member of a group consisting of encryption, de-encryption, encoding, decoding, multiplexing, de-multiplexing, modulation, and demodulation.

20. (ORIGINAL) The system of claim 1 further comprising a service node configured to communicate with the wireless switch.

21. (PREVIOUSLY PRESENTED) The system of claim 20 wherein the service node is configured to communicate with the wireless switch using at least one member of a group consisting of a third wireless communication and a third wireline communication.

22. (ORIGINAL) The system of claim 20 wherein the service node is configured to use an inverse multiplex asynchronous transfer mode protocol to process a portion of data for transmission to the wireless switch.

23. (ORIGINAL) The system of claim 1 further comprising a service node configured to communicate with the wireline switch.

24. (PREVIOUSLY PRESENTED) The system of claim 23 wherein the service node is configured to communicate with the wireline switch using at least one member of a group consisting of a third wireless communication and a third wireline communication.

25. (ORIGINAL) The system of claim 23 wherein the service node is configured to use an inverse multiplex asynchronous transfer mode protocol to process a portion of data for transmission to the wireline switch.

26. (PREVIOUSLY PRESENTED) The system of claim 1 wherein each of the first and second wireless communications comprises a first service type communication and each of the first and second wireline communications comprises a second service type communication.

27. (PREVIOUSLY PRESENTED) A system for multiple access comprising:

a wireline switch configured to receive a first set of communications, to format the first set of communications as at least one wireline communication, and to transmit the at least one wireline communication;

a wireless switch configured to receive a second set of communications, to format the second set of communications as at least one wireless communication, and to transmit the at least one wireless communication;

an access device comprising an antenna and a wireline communication port, wherein the access device is configured to receive the at least one wireline communication via the wireline communication port and the at least one wireless communication via the antenna; and

the access device further configured to receive data in a premises communication from a premises equipment and process a first portion of the data for transmission in a second wireless communication and process a second portion of the data for transmission in a second wireline communication.

28. (ORIGINAL) The system of claim 27 wherein the first set of communications are formatted as a plurality of wireline communications, and the wireline switch is configured to transmit the plurality of wireline communications to the access device.

29. (ORIGINAL) The system of claim 27 wherein the wireline switch comprises a digital subscriber line access multiplexer, and the digital subscriber line access multiplexer is configured to multiplex the first set of communications as at least one digital subscriber line wireline communication.

30. (ORIGINAL) The system of claim 27 wherein the second set of communications are formatted as a plurality of wireless communications, and the wireless switch is configured to transmit the plurality of wireless communications to the access device.

31. (CURRENTLY AMENDED) The system of claim 27 ~~further comprising a premises equipment~~ wherein the access device is configured to format the wireless communication to a digital communication and to transmit the digital communication to the premises equipment.

32. (ORIGINAL) The system of claim 31 wherein the digital communication comprises voice based data, and the premises equipment is configured to format the digital communication as an analog communication for voice access.

33. (CURRENTLY AMENDED) The system of claim 27 ~~further comprising a premises equipment~~ wherein the wireless communication comprises voice-based data, and the access device is configured to format the wireless communication to an analog communication for voice access and to transmit the analog communication to the premises equipment.

34. (PREVIOUSLY PRESENTED) The system of claim 27 wherein the first set of communications comprises data representative of at least one member of a group consisting of voice-based data, internet protocol data, digital data, video data, and media data.

35. (PREVIOUSLY PRESENTED) The system of claim 27 wherein the second set of communications comprises data representative of at least one member of a group consisting of voice-based data, internet protocol data, digital data, video data, and media data.

36. (PREVIOUSLY PRESENTED) A system for multiple access comprising:
an access transceiver comprising an antenna and a wireline communication port,
wherein the access transceiver is configured to communicate using a wireline
communication and a wireless communication;
a medium access control layer configured to control access to the access
transceiver for communicating the wireline communication and the wireless
communication;
a service hub configured to communicate first data for the wireline
communication and a second data for the wireless communication for at least one
premises communication; and
a multiplexer configured to demultiplex the wireline communication and the
wireless communication, and process the wireline communication and the wireless
communication with an inverse multiplex asynchronous transfer mode protocol to
generate another communication.

37. (CANCELED)

38. (CANCELED)

39. (PREVIOUSLY PRESENTED) The system of claim 36 further comprising the
multiplexer configured to multiplex at least one member of a group consisting of the first
data and the second data.

40. (CURRENTLY AMENDED) The system of claim 39 wherein the multiplexer is
configured to process the first data and the second data with ~~an~~ the inverse multiplex
asynchronous transfer mode protocol to generate the wireline communication and the
wireless communication.

41. (PREVIOUSLY PRESENTED) The system of claim 36 further comprising a modulator configured to modulate data from the premises communication for generation of at least one member of a group consisting of the wireline communication and the wireless communication.

42. (PREVIOUSLY PRESENTED) The system of claim 36 further comprising a modulator configured to demodulate data from at least one member of a group consisting of the wireline communication and the wireless communication for generation of the premises communication.

43. (PREVIOUSLY PRESENTED) The system of claim 36 wherein the access transceiver comprises at least one member of a group consisting of a plain old telephone service port, a digital subscriber line port, a hybrid fiber coaxial port, and an antenna.

44. (PREVIOUSLY PRESENTED) The system of claim 36 further comprising a premises equipment comprising at least one member of a group consisting of a computer, a telephone, a set top box, and a narrowband device.

45. (PREVIOUSLY PRESENTED) The system of claim 36 wherein the access transceiver is configured to transmit or receive the wireline communication via the wireline communication port and the wireless communication via the antenna.

46. (CURRENTLY AMENDED) The system of claim 36 wherein the medium access control layer is further ~~[[is]]~~ configured to control a resource for combining the first data from the wireline communication and the second data from the wireless communication to ~~another~~ the other communication.

47. (ORIGINAL) The system of claim 36 wherein the service hub is configured to transmit or receive the premises communication.

48. (PREVIOUSLY PRESENTED) A method for multiple access comprising:
in a wireline switch, communicating using a wireline communication;
in a wireless switch, communicating using a wireless communication;
in an access device comprising an antenna and a wireline communication port,
engaging in the wireline communication to communicate via the wireline communication
port with the wireline switch and to engage in the wireless communication via the
antenna to communicate with the wireless switch; and
in the access device, using an inverse multiplex asynchronous transfer mode
protocol to process at least one member of a group consisting of the wireless
communication and the wireline communication.
49. (ORIGINAL) The method of claim 48 further comprising receiving the wireless
communication from the wireless switch at the access device and receiving the wireline
communication from the wireline switch at the access device.
50. (ORIGINAL) The method of claim 48 further comprising transmitting the wireless
communication to the wireless switch from the access device and transmitting the
wireline communication to the wireline switch from the access device.
51. (PREVIOUSLY CANCELED)
52. (CURRENTLY AMENDED) The method of claim 48 further comprising, in the
access device, receiving the wireless communication, receiving the wireline
communication, and using ~~an~~ the inverse multiplex asynchronous transfer mode protocol
to combine data from the wireless communication and other data from the wireline
communication to form a premises communication.
53. (ORIGINAL) The method of claim 52 further comprising receiving the premises
communication at a premises equipment from the access device.

54. (CURRENTLY AMENDED) The method of claim 48 further comprising, in the access device, using ~~an~~ the inverse multiplex asynchronous transfer mode protocol to process a first portion of data for transmission in the wireless communication and to process a second portion of data for transmission in the wireline communication.

55. (ORIGINAL) The method of claim 54 further comprising transmitting a premises communication to the access device from a premises equipment, the premises communication comprising the first portion of data and the second portion of data.

56. (PREVIOUSLY PRESENTED) The method of claim 48 further comprising processing the wireless communication at the access device with at least one member of a group consisting of encryption, de-encryption, encoding, decoding, multiplexing, de-multiplexing, modulation, and demodulation.

57. (PREVIOUSLY PRESENTED) The method of claim 48 further comprising processing the wireline communication at the access device with at least one member of a group consisting of encryption, de-encryption, encoding, decoding, multiplexing, de-multiplexing, modulation, and demodulation.

58. (PREVIOUSLY PRESENTED) The method of claim 48 further comprising processing the wireless communication at the wireless switch with at least one member of a group consisting of encryption, de-encryption, encoding, decoding, multiplexing, de-multiplexing, modulation, and demodulation.

59. (PREVIOUSLY PRESENTED) The method of claim 48 further comprising processing the wireline communication at the wireline switch with at least one member of a group consisting of encryption, de-encryption, encoding, decoding, multiplexing, de-multiplexing, modulation, and demodulation.

60. (PREVIOUSLY PRESENTED) The method of claim 48 further comprising the wireless switch communicating with a service node.

61. (CURRENTLY AMENDED) The method of claim 60 further ~~consisting of~~ comprising communicating at the service node using at least one member of a group ~~comprising~~ consisting of a wireless communication and a wireline communication.

62. (CURRENTLY AMENDED) The method of claim 61 further comprising communicating at the service node using ~~an~~ the inverse multiplex asynchronous transfer mode protocol to process a portion of data for transmission to the wireless switch.

63. (PREVIOUSLY PRESENTED) The method of claim 48 further comprising the wireline switch communicating with a service node.

64. (PREVIOUSLY PRESENTED) The method of claim 63 further comprising communicating at the service node using at least one member of a group consisting of a wireless communication and a wireline communication.

65. (CURRENTLY AMENDED) The method of claim 63 further comprising communicating at the service node using ~~an~~ the inverse multiplex asynchronous transfer mode protocol to process a portion of data for transmission to the wireline switch.

66. (ORIGINAL) The method of claim 48 wherein the wireless communication comprises a first service type communication and the wireline communication comprises a second service type communication.

67-69. (PREVIOUSLY CANCELED)